Upward Binding and Polysynthesis

In several polysynthetic languages that belong to different families, a phenomenon of what looks like free upward DP ellipsis, i.e. with the antecedent in the subordinate clause with the gap in the matrix clause, has been recorded. In the polysynthetic Adyghe language (West Caucasian, the Circassian branch), with all kinds of subordinate clauses, adjuncts and complements alike, both upward and downward DP ellipsis is available, cf. (1–3). Informants often produce left- & upward ellipsis of a DP spontaneously, especially when the matrix clause conveys new and unexpected information (4). Similar facts have been found in Kadiweu, Waikuru family, Brazil (Sandalo 1997), Navajo, Na-Dene family, North America (Hale 1973), Passamaquoddy, Algonquian (Brüning 2005), and Nootka (Nuuchahnulth), Wakashan (Davis, Wojdak 2004), all polysynthetic, cf. (5–7).

A problem with Principle C of the Binding theory arises which rules out any pronoun (including pros which might be postulated instead of the elliptic gaps, or corresponding pronominal arguments within polysynthetic verbs) to syntactically bind referential expressions. In Adyghe, within a single clause, Principle C is valid (8).

There is firm evidence that the subordinate clauses are really embedded in Adyghe, which can be seen from the usual restrictions on constituent permutations, from Negative Concord operating downward, but not upward etc. Free overt pronouns, unlike pro’s or pronominal arguments, show no Principle C violation.

Even more striking is the ability of pronominal arguments to undergo upward semantic binding, quite contrary to the well-known generalization that semantic binding (e.g. bound anaphora) requires syntactic binding (Bach, Partee 1980, Reinhart 1983:122–137; Heim, Kratzer 1998: 264), cf. (9–10) which most informants find ambiguous. Brüning (2005: 105) claims explicitly that in Passamaquoddy semantic binding cannot operate upward; no relevant data are yet available from Navajo, Nootka, Kadiweu, or any other polysynthetic language. In Adyghe, free and personal pronouns cannot be semantically bound from below, and referential expressions cannot be bound at all.

In the paper, possible theoretical hypotheses to account for these facts will be considered. Unrestricted Control or Raising into thematic positions seems unlikely; the account via Ellipsis is problematic in view of the bound anaphora cases (Everyone wants PRO to win ≠ Everyone wants everyone to win). The Movement approach seems the most prospective, in spite of the fact that the island constraints on ellipsis in Adyghe recorded in (Beljaeva, Minor 2005) have not been confirmed.

Complement subordinate clause
(1) a. [пшаше-m wered qə-ʔw e-n-ew] __ faj
girl-ERG song DIR-sing-POT-ADV want
b. ___ faj [пшаше-m wered qə-ʔw e-n-ew]
want girl-ERG song DIR-sing-POT-ADV
(She)ij wants the girlj to sing a song
c. пшаше-r faj [ ___ wered qə-ʔw e-n-ew]
girl-ABS want song DIR-sing-POT-ADV
d. [ ___ wered qə-ʔw e-n-ew] пшаше-r faj
song DIR-sing-POT-ADV girl-ABS хочет
The girli wants to sing a song// wants herj to sing a song

Adjunct subordinate clause (the temporal ze-___-m converb)
(2) a. [пшаше-m ə-ʃ qə-ze-λ.екв.ə-m], ___ qe-κω-κ
girl-ERG 3SG-brother DIR-REL-see-ERG DIR-cry-PST
b. ___ qe-κω-κ [пшаше-m ə-ʃ qə-ze-λ.екв.ə-m]
DIR-cry-PST girl-ERG 3SG-brother DIR-REL-see-ERG
(She)i,j cried, when the girlj saw her brother
c. пшаше-r qe-κω-κ [ ___ ə-ʃ qə-ze-λ.екв.ə-m]
girl-ABS DIR-cry-PST 3SG-brother DIR-REL-see-ERG
d. [ ___ ə-ʃ qə-ze-λ.екв.ə-m] пшаше-r qe-κω-κ
3SG-brother DIR-REL-see-ERG girl-ABS DIR-cry-PST
The girli cried, when sheij saw her brother.
Head-internal relative clause

(3) a.  qə-kəwεtə-r [əf-ɛw əkəwε-m əkəwεnɛ’ɛ-r]
   DIR-find-PST man-ADV hunter-ERG gun-ABS
   ze-r-jə-s’ə-ɛ-r]
REL-3SG-3SG-sell-PST-ABS
b.  [əf-ɛw əkəwε-m əkəwεnɛ’ɛ-r]
   man-ADV hunter-ERG gun-ABS REL-3SG-3SG-sell-PST-ABS
   qə-kəwεtə-r
   DIR-find-PST
He,i found the man who had sold the gun to the hunteri.

(4) wə-žək’ɛ wə-ps.  me-x’əme-x [p:šəše-me wə-ə-ɛkəwε-g’ɛ]
2-beard 2-shave 3-fear-PL girl-ERG.PL 2-REL-3PL-see-INSTR
Shave your beard. The girls get frightened when they see you (Shapsug dialect).

(5) Kadiweu, Waikuru family, Brazil (Sandalo 1997)
   y-owo-God [me y-ema:n Ʉo Ʉoa Maria]
   3ERG-know-TRNS COMP 3ERG-love John Mary
Johni knows that he; loves Mary
lit. (He,) knows that John, loves Mary

(6) Passamaquoddy, Algonquian (Brüning 2005):
   Litahasu [’-tahcuwi-tkon-ku-l əkəwε hesis-o]
   thinks.3 must.arrest-INV-OBV Joseph his.elder.brother-OBV
not nucihqonket
this policeman
lit: Hei thinks that Josephi’s older brother the policeman must arrest himi.

(7) Nootka (Nuuchahnulth), Wakashan (Davis, Wojdak 2004):
   wawaaʔiš [’ɛn ətəš,wi’təs-(hʊk) əkəwε sapni əʔaniiɬ.i:k]
   is.saying that knead-(3ABS) Christine bread tomorrow
Christine is saying that she is gonna knead bread tomorrow, lit. (Shei)-is-saying that Christine, is gonna
knead bread tomorrow

(8) pro j-epLE
   Lena 3-3-look
He is looking at Lena
* Lena is looking at herself

(9) faj [a zə-m s’ətəwε-n-x-ɛw]
   want he one-ERG praise-POT-PL-ADV
1) He wants that they praise only him.
2) Only he wants them to praise him

(10) gəwəs’əyɛ je-s-tə-kə-r [s’egəwεəɬɛ sabəj pepə]
   word 3SG-1SG-buy-PST toy kid every
   qə-fe-s’əwɛn-nɛw
INV-BEN-1SG-buy-POT-ADV
I promised to himi to buy a toy for every kidi.

References
2 Konferencija po tipologii i grammatike dlja molodyx issledovatelej. S-Peterburg.
August.
1: 1-47.
Occasional Papers in Linguistics. Cambridge, Mas.: MITWPL